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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,610	04/21/2006	Toshio Yamauchi	0969-0187PUS1	2059
2292 7590 10/27/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER MORGAN, EMILY M				
ART UNIT 3677		PAPER NUMBER		
NOTIFICATION DATE 10/27/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/576,610

Applicant(s)

YAMAUCHI, TOSHIO

Examiner

EMILY M. MORGAN

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "contact section" of each of the side walls (newly added paragraph of the wheel guide) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Examiner further notes that the sidewalls face the inside and outside of the caster, rather than the adjacent pieces on the belt.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 1 is objected to because of the following informalities: Applicant claims a "contact section" of the side wall but does not disclose what is contacting it. Examiner further notes that the side walls do not face the adjacent piece on the belt. Appropriate correction is required.

Claim Rejections - 35 USC § 103

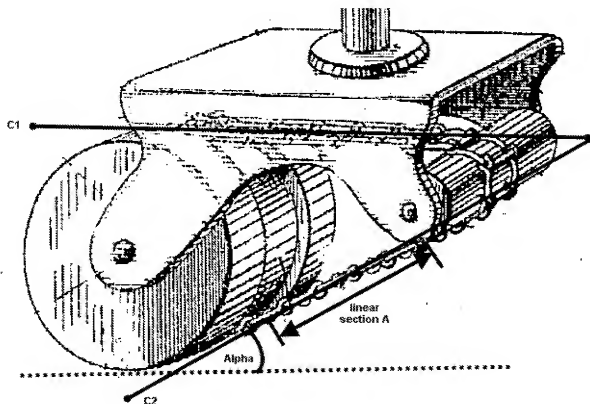
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over patent 1066754 to Rison in view of patent 4752105 to Barnard.

Regarding claim 1, Rison discloses a caster (figure, shown below) comprising: first 19 and second 21 wheels attached to a mounting leg 11; at least one of the first 19 and second 21 wheels is pivotably attached to the mounting leg (both are pivoting around the wheel's axis); the first 19 and second 21 wheels disposed forward and back and an endless wrap-around member 22 wrapped around the first 19 and second 21 wheels, the first and second wheels having common tangents C1 and C2, the common tangent C2 having an angle (alpha) with respect to a ground surface, wherein the

wraparound member 22 is a continuous endless belt formed by connecting a plurality of pieces (links, line 56) via a plurality of connecting members, the wraparound member having a linear portion A formed along at least the common tangent C2 of the wheels (all shown below). Rison does not disclose the specified structure of the wraparound member.



Barnard discloses wrap around tread (figure 2) wherein the tread is a continuous endless belt formed by connecting a plurality of pieces 40 via at least one connecting member 41, pieces 40 are independently formed as a body including a wheel guide section 12.1 on an inner peripheral side thereof (figure 3); each of the wheel guide sections 12.1 having a connecting section 39 (figure 8) extending in an axial direction of the wheels (figure 8) and facing the adjacent pieces of either side thereof, a pair of

sidewalls 56 formed on inner and outer peripheral ends of the connecting section 39 (figure 4), each of the side walls 56 facing the adjacent pieces 40 and including a contact section (external part of 56 facing away from pad 60) extending away from an axis of the wheels in a direction perpendicular to the connecting section 39, and a guide wall 12.2 extending towards the axis of the wheels in the direction perpendicular to the connecting section 39, and when viewed along the axial direction of the wheels, each of the contacting sections 40.3, 40.4 is seen as a linear section that extends parallel to the contacting sections of the adjacent pieces (figure 2), and that is perpendicular to the linear portion A of the common tangent C2 of the wheels (each piece is seeming perpendicular to the linear length between the two wheels, figure 2), wherein each of the guide walls 12.2 of the wheel guide section 12.1 includes an inclined surface section (creating acute angle 48), the inclined surface section being adapted to form a groove that is substantially V- shaped between each of the adjacent pieces (figure 2), thereby enabling the wraparound member to bend along an outer periphery of each of the first and second wheels (figure 2), wherein connecting sections 39 are provided between the contacting section 40.3 and 40.4 and the guide wall 12.2 of each of the pieces.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to place a guide wall 12.2 on all sides of the wheels, not just between the two wheels, since it has been held that mere duplication of the essential working parts of a device involves only routine skilled the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. The guide wall 12.2 is shaped so that the wheels on either side of it will contact the guide and ensure that the track will stay in the proper place on

the caster. Placing such a guide wall on either side of the track piece to contact one wheel on each side would provide another layer of insurance that the track will stay in its proper place.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the treads of Barnard in place of the links of Rison, motivated by the desire to further enable the caster of Rison to carry itself over inequalities in the floor (line 13) just as Barnard uses the tread to go over obstacles in the land. Rison also discloses that other flexible members may be applicable to the caster disclosed (lines 55-60). This would be an easy exchange from links to the Barnard tread in that the wheels of Rison are centrally grooved, which would accommodate the central guide pieces of Barnard.

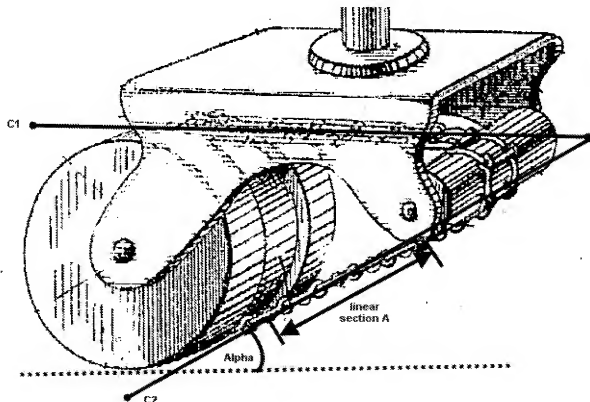
Since the contacting sections of the adjacent pieces abut respectively against each other along a linear portion (shown in figure 2), when the pieces are applied to the Rison caster, the effect would be the same along the linear portion of tangent C2. The Barnard applied tread along the linear portion A of the common tangent C2 is capable of maintaining a linear condition and is prevented from being dented, so that even when the linear portion A is pushed by a force from an outside, the linear portion A is capable of serving as an anti-sticking plate. This is done because the pressure faces are adapted in Barnard to prevent reverse bending of the track member (column 1, line 43).

Regarding claim 16, Rison as modified discloses the claimed invention except for the connecting member being a sheet belt. It would have been obvious to one having

ordinary skill in the art at the time of the invention was made to replace the wire of Barnard with a sheet belt, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. It is also common knowledge to choose a material that has sufficient strength, durability, flexibility, hardness, etc. for the application and intended use of that material. The sheet belt and the wire of Barnard do the same thing, to keep the pieces 40 together in a belt like manner. It would have been obvious to one of ordinary skill in the art to use a known material from a known usage in a similar usage as taught by Barnard.

Regarding claim 18, Rison as modified discloses the caster according to claim 1, wherein the at least one connecting member is a cord (wire 41) extending through a connecting hole 43. Rison as modified does not disclose that the holes extend through the side walls, however Rison as modified does disclose that the wires extend in the same orientation and in multiple places, similarly disclosed by applicant. Note that it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. See also, *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975) (the particular placement of a contact in a conductivity measuring device was held to be an obvious matter of design choice). In this matter, the wires may be extended through multiple different locations along the part holding the pad 60 and still serve the same purpose as that described by Rison as modified.

Regarding claim 19, Rison discloses a caster comprising: first 19 and second 21 wheels being disposed forward and back and an endless wrap-around member 22 wrapped around the first 19 and second 21 wheels, the first and second wheels having common tangents C1 and C2, the common tangent C2 having an angle d with respect to a ground surface (see figure below), wherein the wraparound member 22 is a continuous endless belt formed by connecting a plurality of pieces, the wraparound member having a linear portion A formed along at least the common tangent C2 of the wheels. The first wheel 19 and the second wheel 21 are offset with respect to each other in the axial direction of the wheels.



Rison does not disclose a specific structure of the wraparound member.

Barnard discloses a wrap around member made of plurality of pieces 40, wherein each of the pieces is independently formed as a body having a wheel guide section 12.1 on an inner peripheral side thereof (figure 3), each of the wheel guide sections 12.1 having a connecting section 39 (figure 8) extending in an axial direction of the wheels (figure 3) and facing the adjacent pieces of either side thereof, a pair of side walls 56 formed, respectively, on inner and outer peripheral ends of the connecting section 39, each of the side walls facing the adjacent pieces 40 (figure 8) and including a contact section (external side of 56, which does not contact pad 60) extending away from an axis of the wheels in a direction perpendicular to the connecting section, and a guide wall 12.2 extending toward the axis of the wheels in the direction perpendicular to the connecting section 39, and when viewed along the axial direction of the wheels, each of the contacting sections 39 is seen as a linear section that extends parallel to the contacting sections 39 of the adjacent pieces (figure 2), and that is perpendicular to the linear portion A of the common tangent C2 of the wheels (each piece is seeming perpendicular to the linear length between the two wheels, figure 2), and since the contacting sections of the adjacent pieces abut respectively against each other along the linear portion A (figure 2), the linear portion A of the common tangent C2 is capable maintaining a linear condition and is prevented from being dented (abstract), so that even when the linear portion A is pushed by a force from an outside, the linear portion A is capable of serving as an anti-sticking plate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to place a guide wall 12.2 on all sides of the wheels, not just

between the two wheels, since it has been held that mere duplication of the essential working parts of a device involves only routine skilled the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. The guide wall 12.2 is shaped so that the wheels on either side of it will contact the guide and ensure that the track will stay in the proper place on the caster. Placing such a guide wall on either side of the track piece to contact one wheel on each side would provide another layer of insurance that the track will stay in its proper place.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the treads of Barnard in place of the links of Rison, motivated by the desire to further enable the caster of Rison to carry itself over inequalities in the floor (line 13) just as Barnard uses the tread to go over obstacles in the land. Rison also discloses that other flexible members may be applicable to the caster disclosed 9lines 55-60). This would be an easy exchange from links to the Barnard tread in that the wheels of Rison are centrally grooved, which would accommodate the central guide pieces of Barnard.

Since the contacting sections of the adjacent pieces abut respectively against each other along a linear portion (shown in figure 2), when the pieces are applied to the Rison caster, the effect would be the same along the linear portion of tangent C2. The Barnard applied tread along the linear portion A of the common tangent C2 is capable maintaining a linear condition and is prevented from being dented, so that even when the linear portion A is pushed by a force from an outside, the linear portion A is capable

of serving as an anti-sticking plate. This is done because the pressure faces are adapted in Barnard to prevent reverse bending of the track member (column 1, line 43).

Regarding claim 20, Rison as modified discloses the caster according to claim 1, but does not disclose that portions of the wheels overlap when viewed axially.

Note that it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. See also, *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975) (the particular placement of a contact in a conductivity measuring device was held to be an obvious matter of design choice). Wheels of Rison can be arranged to fit the tread of Barnard, the "wheels" can be made of double wheels, as shown by Figure 9 of Barnard, and the overlap can occur when the pair for the front wheels are set wider than the back wheels or vice versa. This does not alter the use or purpose of the caster.

Response to Arguments

Applicant's arguments filed 8/13/2009 have been fully considered but they are not persuasive.

Examiner thanks applicant for successfully fixing claim 1 to properly claim each article.

Regarding the wheels being "pivotably attached", examiner takes the position that as long as the wheels can rotate along the axis, they can be considered "pivoting"

around the axis. Should applicant desire to claim that one wheel is "sliding", please use the term "sliding".

Regarding the application of the wheels to a mounting leg, this is also disclosed by Rison.

Regarding the "offset" requirement, examiner notes that neither wheel of Rison is either directly horizontal or directly vertical of the other, but is separated from the other, which is considered "offset".

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMILY M. MORGAN whose telephone number is

(571)270-3650. The examiner can normally be reached on Monday-Thursday, alternate Fri, 7:30am to 5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on 571-272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor Batson/
Supervisory Patent Examiner, Art Unit 3677

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